**3GPP TSG-CT WG3 Meeting #128 *C3-232325***

**Bratislava, Slovakia, 22nd - 26th May, 2023**

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| *CR-Form-v12.2* | | | | | | | | |
| **CHANGE REQUEST** | | | | | | | | |
|  | | | | | | | | |
|  | **29.565** | **CR** | **0074** | **rev** | **-** | **Current version:** | **18.1.0** |  |
|  | | | | | | | | |
| *For* [***HE******LP***](http://www.3gpp.org/3G_Specs/CRs.htm#_blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](http://www.3gpp.org/Change-Requests)*.* | | | | | | | | |
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| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network | **X** |

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|  | | | | | | | | | | |
| ***Title:*** | Definition of 3gpp-5gs-detnet-node YANG file | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Source to WG:*** | Ericsson | | | | | | | | | |
| ***Source to TSG:*** | CT3 | | | | | | | | | |
|  |  | | | | | | | | | |
| ***Work item code:*** | DetNet | | | | |  | ***Date:*** | | | 2023-05-15 |
|  |  | | | |  | |  | | |  |
| ***Category:*** | **B** |  | | | | | ***Release:*** | | | Rel-18 |
|  | *Use one of the following categories:* ***F*** *(correction)* ***A*** *(mirror corresponding to a change in an earlier release)* ***B*** *(addition of feature),* ***C*** *(functional modification of feature)* ***D*** *(editorial modification)*  Detailed explanations of the above categories can be found in 3GPP [TR 21.900](http://www.3gpp.org/ftp/Specs/html-info/21900.htm). | | | | | | | | *Use one of the following releases: Rel-8 (Release 8) Rel-9 (Release 9) Rel-10 (Release 10) Rel-11 (Release 11) … Rel-16 (Release 16) Rel-17 (Release 17) Rel-18 (Release 18) Rel-19 (Release 19)* | |
|  |  | | | | | | | | | |
| ***Reason for change:*** | | During CT3#127e it was agreed by CT3 WG that the 3GPP extensions to IETF draft-ietf-detnet-yang are documented in TS 29.565. The documentation proposal was covered in DP C3-231096 and C3-231097.  A new Annex to cover the definition of the YANG file with the 3GPP Extension 3gpp-5gs-detnet-node needs to be brought to TS 29.565. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Definition of Annex C to specify the YANG file for the 3GPP Extension 3gpp-5gs-detnet-node. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Consequences if not approved:*** | | The DetNet Controller cannot provide the maximum latency and maximum loss requirements the 5GS system shall apply. The 5GS system cannot report the user plane node Id and/or the 5GS-node status codes. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Clauses affected:*** | | (new) Annex C | | | | | | | | |
|  | |  | | | | | | | | |
|  | | **Y** | **N** |  | | | |  | | |
| ***Other specs*** | |  | **x** | Other core specifications | | | | TS/TR ... CR ... | | |
| ***affected:*** | |  | **X** | Test specifications | | | | TS/TR ... CR ... | | |
| ***(show related CRs)*** | |  | **X** | O&M Specifications | | | | TS/TR ... CR ... | | |
|  | |  | | | | | | | | |
| ***Other comments:*** | | This CR does not impact any OpenAPI file of this specification. This CR creates a YANG file in this specification. | | | | | | | | |
|  | |  | | | | | | | | |
| ***This CR's revision history:*** | |  | | | | | | | | |

\* \* \* \* Start of Changes \* \* \* \*

Annex C (normative):  
YANG module specification

# C.1 General

The present Annex contains the YANG file for the 3gpp-5gs-detnet-node YANG module, that specifies the 3GPP extensions to support:

- The indication of the maximum loss and maximumd latency the 5GS system shall apply for the provided DetNet flows.

- 5GS specific status codes with information about the status of the configuration requested by the DetNet controller.

- Exposure of 5GS DetNet node identification.

Editor's note: The YANG module impacts to cover the report about 5GS specific status codes and the status of the configuration per DetNet controller and the exposure of 5GS DetNet node identification is FFS.

# C.2 YANG module 3gpp-5gs-detnet-node

<CODE BEGINS> file "3gpp-5gs-detnet-node.yang"

module 3gpp-5gs-detnet-node {

yang-version 1.1;

namespace "urn:3gpp:node:detnet:3gpp-5gs-detnet-node";

prefix 5gs3gppdnet;

import ietf-detnet {

prefix dnet;

reference

"draft-ietf-detnet-yang-17";

}

organization "3GPP CT3 Working Group";

contact

"CT3 WG Web: <https://www.3gpp.org/3gpp-groups/core-network-terminals-ct/ct-wg3>";

description

"3gpp-5gs-detnet-node module contains an extension of ietf-detnet YANG module with

additional parameters defined for interworking with 3GPP 5GS.

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This version of this YANG module is specified in:

3GPP TS 29.565 V18.1.0; 5G System;

Time Sensitive Communication and Time Synchronization Function Services.

url: https://www.3gpp.org/ftp/Specs/archive/29\_series/29.565/";

reference

"Additional information to this YANG module is specified in:

3GPP TS 23.501, System architecture for the 5G System (5GS);

url: https://www.3gpp.org/ftp/Specs/archive/23\_series/23.501/

3GPP TS 23.503, Policy and charging control framework (5GS)

url: <https://www.3gpp.org/ftp/Specs/archive/23_series/23.503/>

3GPP TS 29.513, Policy and Chaging Control signalling flows and QoS parameter mapping

url: <https://www.3gpp.org/ftp/Specs/archive/29_series/29.513/>";

revision 2023-06-13 {

description "version: v1.0.0-alpha.1";

}

container 5gs-node-requirements {

description

"This container defines the maximum delay and/or the maximum loss the 5GS needs to satisfy";

leaf forwarding-sub-layer {

type dnet:forwarding-sub-layer-ref;

description

"Reference to the forwarding sub-layer that the maximum delay and/or the maximum loss

applies to";

}

leaf 5gs-node-max-latency {

type uint32;

units "nanoseconds";

description

"Maximum latency from 5GS node ingress to 5GS node egress(es) for a single packet of the

DetNet flow. It is specified as an integer number of nanoseconds";

}

leaf 5gs-node-max-loss {

type uint32;

description

"Maximum Packet Loss Ration (PLR) parameter for the DetNet service between the 5GS node

ingress and 5GS node egress(es)”;

}

}

}

<CODE ENDS>

\* \* \* \* End of change \* \* \* \*